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#### REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-42 are pending.

## **Typographical Correction**

Claim 1 is amended to correct a typographical error.

#### **Election/Restriction**

The claims are subjected to a restriction requirement under 35 U.S.C. §121 as containing two patentably distinct inventions:

- I. Claims 1-42 are drawn to searching multimedia objects using a keyword and content features, which is classified in class 707, subclass 3; and
- II. Claims 43-44, drawn to creating a user interface to allow the user to browse and sending feedback to the system, which is classified in class 345, subclass 700;

Applicant hereby elects, without traverse, to prosecute Group I.

# 35 U.S.C. §103

Claims 1-42 are rejected under 35 U.S.C. §103(a) as being unpatentable over Amano et al. (A flexible content-based image retrieval system with combined scene description word, page 201-208, June 17-23, 1996, Multimedia Computing and System) in view of U.S. Patent 6,369,811 to Graham et al (Graham)

Amended independent claim 1 requires "identifying, in response to a search query, first multimedia objects having an associated keyword that matches a

keyword in the search query and second multimedia objects that have content features similar to those of the first multimedia objects, presenting the first and second multimedia objects to a user ... and annotating one or more of the multimedia objects, which are deemed relevant by the user, with the keyword."

The combination of Amano and Graham fails to teach or suggest the method of claim 1. Neither reference teaches identifying "first multimedia objects" having an associated keyword that matches a keyword in the search query and "second multimedia objects that have content features similar to those of the first multimedia objects." Amano describes retrieving images based on keywords. Amano relies on automated keyword extraction based on scene or image recognition. The extracted keywords are then used to retrieve images. All multimedia objects (images) in Amano are identified by particular keywords associated with them. In Figs. 4 and 5 of Amano for example, the images are retrieved using two unique keywords associated with each image. Amano does not teach that other images (i.e., multimedia objects) may be retrieved with a keyword associated with one image (i.e., the first multimedia object). Graham fails to add any teaching regarding retrieving multimedia objects with a keyword or otherwise. Accordingly for this reason alone, claim 1 is allowable over the cited combination.

The combination further fails to teach "annotating one or more of the multimedia objects, which are deemed relevant by the user, with the keyword." Amano is silent as to this feature, as recognized by the office and its reliance on Graham. The Office contends that it would be obvious to combine these references. Applicants disagree. A person skilled in the art would not make the combination given the teachings in the reference. Amano relies on unique keywords associated with each image (multimedia object) and performs searching

based on the unique keywords. Amano teaches away from changing the keyword associated with a particular image, as taught by Graham. Amano relies on keeping the same keywords associated with particular images, otherwise future retrieval is not possible in the scheme taught by Amano. This is discussed in paragraph "4.1 Fitness of Keyword," Amano page 205. Accordingly for this reason, a combination of Amano and Graham is improper. Applicant respectfully requests that the §103 rejection of claim 1 be withdrawn.

**Dependent claims 2-9** are allowable by virtue of their dependency on base claim 1. Applicants respectfully request that the §103 rejection of claims 2-9 be withdrawn.

Independent claim 10 defines "a method comprising: iteratively retrieving multimedia objects from a database and monitoring feedback from a user as to whether the multimedia objects based on the user's feedback are relevant to a keyword in a search query; and annotating the multimedia objects based on the user's feedback."

As discussed in support of claim 1, the scheme taught in Amano relies on images (objects) having unique keywords that can not be changed. Amano teaches away from annotating the multimedia objects with the keyword. Accordingly, a combination of Amano and Graham fails to teach or suggest the claimed methods. Applicant respectfully requests that the §103 rejection of claim 10 be withdrawn.

**Dependent claims 11-17** are allowable by virtue of their dependency on base claim 10. Applicants respectfully request that the §103 rejection of claims 11-17 be withdrawn.

Independent claim 18 defines "a method comprising: retrieving multimedia objects according to a content-based retrieval process; presenting the

multimedia objects to a user; monitoring feedback from the user as to which of the multimedia objects are relevant; and annotating one or more of the multimedia objects based on the user's feedback."

As discussed in support of claim 1, the scheme taught in Amano relies on images (objects) having unique keywords that can not be changed. Amano teaches away from annotating the multimedia objects with the keyword. Accordingly, a combination of Amano and Graham fails to teach or suggest the claimed methods. Applicant respectfully requests that the §103 rejection of claim 18 be withdrawn.

**Dependent claims 19-24** are allowable by virtue of their dependency on base claim 18. Applicants respectfully request that the §103 rejection of claims 19-24 be withdrawn.

Independent claim 25 requires "a method comprising: maintaining associations between keywords and multimedia objects, the associations being weighted to indicate how relevant the keywords are to the multimedia objects."

Amano does not suggest nor teach maintaining weighted associations between keywords and multimedia objects, to indicate how relevant the keywords are to the multimedia objects. Amano relies on using a keyword that is composed from two different conceptual level keywords. The scheme in Amano relies on two keywords, one keyword whose conceptual level is comparatively high, and another keyword whose conceptual level is lower. The two keywords are based on particular extraction techniques. The higher conceptual level keyword uses image recognition and the lower conceptual level keyword uses primitive parameters. Neither keyword is related to a weighted association with the particular image.

Graham is cited for teaching "monitoring feedback that the user input after they review the objects." Graham, however, provides no assistance in light of

Amano as to the recited methodology of claim 25. Accordingly, a combination of Amano and Graham fails to teach or suggest the claimed methods. Applicant respectfully requests that the §103 rejection of claim 25 be withdrawn.

**Dependent claims 26-31** are allowable by virtue of their dependency on base claim 25. Applicants respectfully request that the §103 rejection of claims 26-31 be withdrawn.

Independent claim 32 requires "an annotation unit to annotate, with a keyword, the multimedia objects based on the user's feedback."

As discussed in support of claim 1, the scheme taught in Amano relies on images (objects) having unique keywords that can not be changed. Amano teaches away from annotating the multimedia objects with the keyword. Accordingly, a combination of Amano and Graham fails to teach or suggest the claimed methods. Applicant respectfully requests that the §103 rejection of claim 32 be withdrawn.

**Dependent claims 33-42** are allowable by virtue of their dependency on base claim 32. Applicants respectfully request that the §103 rejection of claims 33-42 be withdrawn.

## **CONCLUSION**

All pending claims 1-42 are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the subject application. If any issues remain that prevent issuance of this application, the Examiner is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

Dated: 2/6/03

By:

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# MARKED UP VERSION OF PENDING CLAIMS UNDER 37 C.F.R. § 1.121(C)(1)(ii):

Amend claim 1 as follows and in accordance with 37 C.F.R. § 1.121(c)(1)(ii), by which the Applicant submits the following marked up version only for claims being changed by the current amendment, wherein the markings are shown by brackets (for deleted matter) and/or underlining (for added matter):

## 1. (Once Amended) A method comprising:

identifying, in response to a search query, first multimedia objects having an associated keyword that matches a keyword in the search query and second multimedia objects that have content features similar to those of the first multimedia objects;

presenting the first and second multimedia objects to a user;

monitoring feedback from the user as to which of the first and second multimedia objects are relevant to the search query; and

annotating one or more of the multimedia objects, which are deemed relevant by the user, with the keyword.